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Report to the Chairman, Subcommittee on Government Information, Justice, and Agriculture, Committee on Government Operations, House of Representatives

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ADP MODERNIZATION

FCC's Automation Planning Is Inadequate

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Information Management and
Technology Division

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September 15, 1988

The Honorable Glenn English
Chairman, Subcommittee on Government Information,
Justice, and Agriculture
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

As requested in your letter of March 30, 1988, we reviewed the adequacy of the Federal Communications Commission's (FCC) automation planning process. As agreed with your office, we focused our work on evaluating whether FCC's strategic automation planning process and its development of the Record Image Processing System adhered to federal policies, practices, and methodologies. This report addresses the results of our review and documents a July 20, 1988, briefing provided to your subcommittee.

Background

As you know, FCC is charged with regulating interstate and foreign commerce via wire and radio communications. Falling under its authority are various media, including telephone, telegraph, radio, and television. FCC receives more than 3 million filings annually. Among these are about 1 million applications for FCC licenses. Documents are also filed in conjunction with rulemaking proceedings, enforcement actions, tariffs, and other matters.

FCC operates 18 separate reference rooms at which documents are available to the public. These reference rooms are located at FCC's Washington, D.C., headquarters, and one each at Gettysburg, Pennsylvania, and Columbia, Maryland. Each of the reference rooms holds different types of documents. For example, one holds FCC's dockets,[1] and others maintain applications for various types of licenses.

In carrying out its responsibilities, FCC uses automation to support activities that range from formulating budgets to issuing licenses. FCC's budget for information technology for fiscal year 1988 is about $9.7 million. In July, 1988, FCC announced plans to request additional funding for new computer-controlled optical image technology for the dockets

[1]Dockets are files containing documents or information on pleadings, and comments and FCC decisions on adjudicatory or rulemaking proceedings at FCC. The dockets are filed in the dockets reference room and are available for public inspection.

reference room, one of 18 reference rooms.[1] This optical image technology is referred to as the Record Image Processing System. FCC plans to examine the use of automation for its other reference rooms over the next several years.

Given the agency's reliance on automation, FCC has acted on past recommendations intended to improve its strategic automation planning. A contractor's report in 1977 stated that automated data processing (ADP) was essential to agency functions and recommended that FCC establish a steering committee to effectively guide and control the ADP program.[2] Our 1979 report recommended that a charter be developed to specify the steering committee's responsibilities for forming and executing an agencywide strategy to achieve objectives and that it be placed under the direction of someone having sufficient authority to direct agencywide ADP activities.[3] In response, FCC established an ADP steering committee in 1978 to formulate and implement an agencywide automation strategy. It also developed a charter which states that the committee is to ensure that automation objectives are consistent with agency objectives and that the committee accomplishes them in a cost-effective manner.

In 1981, FCC also established the position of managing director, who reports to the chairman, FCC. This official is responsible for managing the activities of FCC's various offices. The ADP steering committee reports to the managing director. Appendix I of this report summarizes FCC's mission and its automation program, and also describes the objectives, scope, and methodology of our review.

[1]We testified in March 1988 that FCC has had problems in managing the records in its dockets reference room (GAO-T-RCED-88-25).

[2]Management Audit of the Effectiveness and Efficiency of the FCC's ADP Program (Touche Ross & Company, Dec. 30, 1977).

[3]Organizing the Federal Communications Commission for Greater Management and Regulatory Effectiveness (GAO/CED-79-107, July 30, 1979).

Inadequate Planning Increases Risk That Automation Program May Not Support Agency Mission

In our review of FCC's automation, we found that FCC's strategic planning process for automation is inadequate. Federal guidance states that strategic automation plans should state goals, objectives, and priorities; link the automation goals to the agency mission; and specify how goals and objectives will be achieved. FCC's strategic automation plans for fiscal years 1984, 1985, 1987, and 1988 (no plan was developed for 1986) do not meet these criteria. For example, the 1988 plan contained an automation program objective of providing bureaus with the capability to manage and control their own information processing environments. The plan, however, does not state how this automation objective will help the agency accomplish its mission or how this objective will be achieved. Further, the document the steering committee prepared in 1980 to serve as a long-term guide for automation has been updated to provide policies, objectives, and responsibilities for developing office automation, but has not been updated for ADP systems.

We believe the flaws in FCC's strategic automation planning process are caused by inaction of its ADP steering committee and a lack of emphasis by FCC's Managing Director on strategic planning. In this regard, the ADP steering committee has been inactive over the last 3 years. The Managing Director acknowledged that the steering committee has been inactive and that its responsibilities may need to be reevaluated. FCC's Chief of Management Planning and Program Evaluation stated that budgetary constraints have resulted in little emphasis being placed on the strategic automation plans. Appendix II more fully discusses the problems we found in FCC's strategic automation planning process.

FCC has not adhered to federal system development life cycle methodologies in developing the Record Image Processing System. Specifically, FCC has not identified all users and their requirements. Users include engineering firms, consultants, law firms, and the FCC itself. FCC surveyed only the paralegals[1] and other visitors to the dockets reference room, not the attorneys or engineers who use the information obtained. The system is also being developed without adequately identifying and considering design alternatives or the costs and benefits of these alternatives. We believe these problems are caused by a lack of review by a body such as the steering committee. Appendix III more fully discusses the problems we found in FCC's development of the Record Image Processing System.

[1] Paralegals are professionals employed by law firms to perform routine legal functions in order to free attorneys for more substantial work.

We discussed the information in this report with FCC officials and their comments have been incorporated as appropriate. In discussing our findings, the Managing Director and his staff acknowledged the flaws in their strategic planning process and in the Record Image Processing System and stated their intention to address them.

Conclusions

The flaws in FCC's strategic automation planning process increase the risk that FCC's automation program may not support the agency's mission objectives. Similarly, by not adhering to system development methodologies, FCC increases the risk that the best design for the Record Image Processing System may not be selected, user needs may not be met, and reduced costs and expected benefits may not be achieved.

Recommendations

To improve FCC's automation planning process, we recommend that the Chairman, FCC, require the Managing Director to

- assure that ADP strategic automation plans identify how each automation program objective supports FCC's mission goals and prioritize these automation program objectives,
- activate the ADP steering committee or designate another group or individual to carry out the responsibilities stated in the committee's charter, and
- assure that budgetary decisions on automation matters are guided by requirements and activities contained in the strategic plan.

In addition, to reduce the risks associated with the development of the Record Image Processing System, we recommend that the Chairman, FCC, require the Managing Director to assure that FCC has identified alternative approaches to developing the system, identified the costs and benefits of such alternative approaches, and carefully defined user requirements. These actions should be completed before any significant investment in the system is made.

As arranged with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the date of this letter. At that time, copies of this report will be sent to

the Director, Office of Management and Budget; the Chairman, Federal Communications Commission; and other interested parties upon request.

Sincerely yours,

Dan White
for Ralph V. Carlone
Director

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Abbreviations

ADP	automated data processing
FCC	Federal Communications Commission
GAO	General Accounting Office
IMTEC	Information Management and Technology Division

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Introduction

FCC's Mission

FCC was created by the Communications Act of 1934 to regulate interstate and foreign communications via wire and radio in the public interest. It was assigned additional regulatory jurisdiction under the provisions of the Communications Satellite Act of 1962. The scope of its regulation includes radio and television broadcasting; telephone, telegraph, and cable television operation; two-way radio and radio operators; and satellite communication. The Commission is composed of five members, appointed by the President with the advice and consent of the Senate. One of the members is designated by the President as chairman.

In carrying out its regulatory functions, FCC receives more than 3 million filings annually. These include almost 1 million license applications; other filings include documents filed in conjunction with rulemaking proceedings, enforcement actions, tariffs, and other matters. FCC regulations also provide for public availability and inspection of almost all documents under its control. Accordingly, FCC operates about 18 separate reference rooms in which documents such as applications for television broadcasting stations are available to the public. The reference rooms are located at FCC's Washington, D.C., headquarters, and one each at Gettysburg, Pennsylvania, and Columbia, Maryland. Each of the reference rooms holds different types of documents. For example, one holds FCC's dockets, and others maintain applications for various types of licenses.

FCC's Automation Program

As regulator of interstate and foreign communication, FCC receives, collects, and generates vast amounts of information. For example, FCC receives applications for the construction of communications facilities, produces information in connection with its licensing of broadcasting and other radio services, and uses information in making its regulatory decisions. All of these operations are supported to some extent by automated information processing systems.

FCC's automation program can be traced back to the late 1950s when FCC began to explore the possibility of using computer systems to reduce license application backlog in several high-volume areas, such as citizens band, aviation, marine, and amateur radio. While these areas remain a major function of FCC's data automation activities, automation is also used for purposes such as managing resources and providing information for analysis of regulatory issues.

From fiscal year 1986 to fiscal year 1988, FCC's budget for information systems increased from $7.4 million to an estimated $9.7 million.

According to its 1988 strategic plan, 56 major information systems are operating within FCC and 16 are planned for development. In its fiscal year 1989 budget, FCC plans to implement an automated records system for its dockets reference room. This system is called the Record Image Processing System; it is intended to increase document security, reduce the use of prime office space for storage, and reduce backlogs of unfiled documents in the dockets reference room.

Objectives, Scope, and Methodology

On March 30, 1988, the Chairman, Subcommittee on Government Information, Justice, and Agriculture, House Committee on Government Operations, requested that we assess the adequacy of FCC's automation planning process. As agreed with the Chairman's office, we focused on evaluating whether FCC's strategic automation planning process and its development of the Record Image Processing System adhered to federal policies, procedures, and methodologies.

We identified and reviewed the policies and procedures under which FCC carries out its strategic planning and systems development and compared these with federal policies, practices, and methodologies. We met with FCC's Managing Director, Deputy Managing Director, Acting Associate Managing Director for Information Management, Chairman of the ADP Steering Committee, and the FCC Secretary to determine their roles in developing the strategic plan and the Record Image Processing System. We also met with the Office of Management and Budget's Chief, Information Policy Branch, and other officials to obtain their comments on FCC's long range plans and to gather budget data.

We assessed FCC's adherence to federal system development life cycle methodologies in developing the Record Image Processing System. Specifically, we evaluated the feasibility study, requirements document, and cost benefit analysis. We visited some of FCC's reference rooms to better understand the records systems FCC plans to automate.

Our review was conducted from April through August 1988 and was performed in accordance with generally accepted government auditing standards.

FCC's Strategic Automation Planning Is Inadequate

Our analysis of FCC's planning documents and discussions with FCC officials shows that FCC's strategic planning for automation is inadequate. As a result, the systems being developed may not support the agency's mission.

Federal Guidance for Strategic Automation Planning

Office of Management and Budget Circular A-130 Management of Federal Information Resources (Dec. 12, 1985) provides that agencies shall "establish multi-year strategic planning processes for acquiring and operating information technology that meet program and mission needs, reflect budget constraints, and form the basis for their budget request." As provided in the 1986 amendments to the Paperwork Reduction Act, each agency is to prepare and annually revise a 5-year plan for meeting these information technology needs.

Key elements of federal agencies' ADP and telecommunications strategic planning are stated in A Five-Year Plan for Meeting the Automatic Data Processing and Telecommunications Needs of the Federal Government, Volume 1: Planning Strategies (Apr. 1984). This document, issued jointly by the Office of Management and Budget, General Services Administration, and Department of Commerce, states that agencies' strategic automation plans should, among other things,

- identify the agency's mission,
- relate each automation program objective to the agency's mission and state the objective in measurable terms,
- provide guidance for prioritizing automation activities, and
- state the agency's strategic automation direction.

FCC's Strategic Automation Planning Does Not Adhere to Federal Guidance

We reviewed FCC's strategic automation plans for fiscal years 1984, 1985, 1987, and 1988 (no plan was prepared in 1986). We found that, while the plans summarize FCC's mission, they do not state how the automation program projects relate to FCC's mission, prioritize the agency's automation activities, or sufficiently state the agency's strategic automation direction. As an example of the first, in the 1988 plan, one automation program objective listed is to provide bureaus with the capability to manage and control their own information processing environments. Another example is the modernization of FCC's licensing of service systems. However, the plan does not state how these automation program objectives will help the agency accomplish its mission objective or how the effectiveness of the automation program will be measured.

In addition, none of the plans prioritize functions to be automated so that automation program objectives that are the most critical to accomplishing the agency's mission can be developed first. Establishing these priorities can aid the agency in making funding decisions.

The Managing Director stated that licensing of services is FCC's main objective and the automation programs are directed at meeting this mission objective. However, we found that licensing of services is not identified as a priority in FCC's strategic automation plans. FCC's chief of management planning and program evaluation stated that lack of priorities in the strategic plan do not pose a problem because little emphasis is placed on the plan when making ADP budget decisions. Additionally, the decisions on which systems will receive priority for implementation are based on budgetary constraints and are not the result of a strategic planning process.

As a statement of the agency's strategic automation direction, FCC prepared a document in 1980 entitled The Future of Electronic Information Handling at the FCC—Blueprint for the 80's. In 1983 FCC updated the office automation portion of the blueprint. This update was valuable because it established policy, objectives, and responsibilities and defined strategies by which the FCC could establish a framework to accomplish its office automation needs. For example, the 1983 document set forth a policy of interoperability of office automation equipment so that information could be exchanged to the greatest extent feasible. It states that to help achieve this objective, future office automation equipment will use a particular operating system[1] and protocol (communications standard). The blueprint also raised some unresolved issues that it noted should be addressed, such as determining what to do with paper documents after automating the information they contain.

The blueprint has not, however, been updated to provide policy, objectives, and responsibilities for developing ADP systems. Without this update, FCC lacks the framework needed to develop ADP systems to support the automation program objectives described in its strategic plans.

[1]An operating system controls the execution of programs and typically provides services such as resource allocation, program scheduling, input/output control, and memory management.

Strategic Planning Deficiencies Are Caused by Inaction of Key Officials

A December 30, 1977, report by Touche Ross and Company stated that automated data processing was essential to agency functions and recommended that FCC establish a steering committee to effectively and efficiently guide and control the automation program. Our report[2] recommended that a charter be developed to specify the steering committee's responsibilities for formulating and executing an agencywide strategy to achieve agency automation objectives, and that it be placed under the direction of a person of sufficient authority to direct FCC-wide activities.

In response to the contractor's recommendations, FCC established an ADP steering committee in 1978. As stated in FCC directive 1400.3A and in the 1988 strategic plan, the steering committee is to ensure that automation objectives are consistent with FCC's mission, and that FCC accomplishes them in a cost-effective manner. The steering committee is to carry out this responsibility by recommending automation priorities, reviewing new automation projects, and assessing how well current projects support FCC's mission.

In 1981 FCC established the position of managing director. This position is under the guidance and direction of the chairman, FCC. The managing director serves as the agency's chief executive and operating official, managing and administering the activities of FCC's various bureaus and offices. The ADP steering committee reports to the managing director. The steering committee meets when called by its chairman, or when the managing director directs it to meet.

Although FCC has acted to improve its strategic automation planning process by establishing an ADP Steering Committee and developing a charter of committee responsibilities, FCC's strategic automation planning does not adhere to federal standards. We believe the flaws in FCC's strategic planning process are caused by (1) inaction of its ADP steering committee and (2) a lack of emphasis by FCC's Managing Director on strategic planning.

According to the steering committee's current chairman, FCC's chief engineer, the committee has been inactive and has not met in 3 years, and it has not reviewed any strategic plans or automation projects during this time. Additionally, the chairman stated it appears that top management is deemphasizing the role of the steering committee, and that is why it has been inactive in its planning role. The Acting Associate Managing Director for Information Management told us the committee, when it

[2]GAO CED-79-107, July 30, 1979.

was active, focused on discussing budget priorities, but could not come to agreement on them and was not involved in ADP planning or policy matters. Regarding management emphasis, the Managing Director acknowledged that the committee had been inactive and that its responsibilities may need to be reevaluated. This official was uncertain whether this meant reducing the role of the steering committee or assuring that it becomes more active in the planning process.

Inadequate ADP Planning Increases the Risk That FCC May Not Efficiently Achieve Its Mission

The flaws in FCC's strategic planning process and the lack of top-level management emphasis on strategic planning increase the risk that FCC's mission objectives may not be supported by the ADP systems being acquired and developed. There is also a risk that FCC may use its scarce resources to develop systems that do not contribute to meeting FCC mission objectives. For example, the blueprint states that to facilitate electronic inquiry of records, systems being developed to support its reference rooms should be interoperable; that is, a system should be able to exchange data with other systems. However, in acting to modernize its reference rooms, FCC decided to use microfiche[1] for the documentation in one reference room, and has plans to use optical image processing for another. These technologies are not interoperable. Microfiche cannot be electronically queried or filed and cannot interchange data with other systems. In commenting on these actions, the Deputy Managing Director noted that the microfiche system was acquired as a stand-alone system to ease the work load caused by the rapid increase in the number of records received. He stated that the number of records received was so great the shelves were in danger of collapsing.

Because the strategic plan does not link automation program objectives to the agency's mission objectives, there is a risk that FCC may use its resources on automated systems that will not contribute to its overall mission objectives. For example, the blueprint and the strategic plans identify electronic filing of docket information as an FCC objective. On July 8, 1988, FCC issued a public notice that it intends to procure a computer-controlled optical system for its dockets reference room. According to FCC's Managing Director and Deputy Managing Director, the proposed system will not be designed for electronic filing at this time. The requirement for electronic filing will be addressed at a later time as an enhancement to the system, according to the Acting Associate Managing Director for Information Management. A delay in identifying this

[1]Microfiche is a sheet of high resolution film capable of containing microimages in a grid pattern, usually containing a title that can be read without magnification.

requirement may result in FCC increasing the risk that the system acquired may (1) not be capable of meeting the yet-to-be-defined functional needs, (2) increase the cost of developing this capability at a later date, and (3) lead to premature replacement of the proposed system.

FCC Has Not Adhered to Federal Methodologies in Developing the Record Image Processing System

Our analysis of FCC's development actions for the Record Image Processing System shows that FCC has not adhered to federal system development life cycle methodologies. Specifically, the design alternative and cost benefit studies are inadequate, and FCC has not identified all users and their requirements.

FCC's Planned Record Image Processing System

FCC regulations provide for public availability and inspection of almost all documents under its control, such as dockets, broadcast licenses, and construction permit applications. Accordingly, FCC operates 18 separate public reference rooms. Each of these is managed by the bureau or office that exercises responsibility over the matters to which those records pertain. For example, the dockets reference room is managed by the Dockets Branch of the Office of the Secretary. As we previously reported,[1] these reference rooms have three major problems: they are difficult to use, have limited safeguards for documents, and have a backlog of unfiled documents.

To eliminate these problems, FCC is considering automating the information in its 18 public reference rooms over the next several years. In its 1989 fiscal year budget, FCC plans to automate one of its most heavily used reference rooms—the dockets reference room. It plans to implement a computer-controlled optical image system to store and retrieve information. This system, called the Record Image Processing System, is expected to increase document security, reduce the cost of handling documents, save prime office storage space, and reduce backlogs of unfiled documents in the Dockets branch and reference room. In addition, users will be able to retrieve and copy records using terminals that FCC plans to install in the dockets reference room. The request for proposals is expected to be released late in 1988. FCC plans a pilot test of the proposed system in 1989 that would cost $300,000 and estimates that an additional $300,000 will be needed to complete the operational system by 1990.

Federal Guidance for System Development

Federal system development life cycle guidance consists of commonly used methodologies, that divide the system development process into distinct phases and allow for periodic management review. According to

[1] Telecommunications: Management and Operation of FCC's Public Reference Rooms (GAO/RCED-88-83, Mar. 4, 1988).

Federal Information Processing Standards,[2] a system life cycle has three phases in which various analyses are completed: (1) the project request, feasibility study, and cost/ benefit analysis (initiation phase); (2) the identification and analysis of user requirements, system design and specification, development, and testing (development phase); and (3) system implementation, operation, and maintenance (operation phase). According to FCC, the Record Image Processing System is in the development phase.

Analyses of Alternatives and Cost Benefits Are Inadequate

We compared FCC's initiation-phase actions in developing the Record Image Processing System with the system development life cycle methodologies and determined that the alternatives system design analysis and the cost benefit analysis are inadequate. As part of the initiation phase, agencies are to complete a feasibility study. This study is supposed to (1) analyze objectives, requirements, and system concepts; (2) evaluate system design alternatives; and (3) recommend a proposed approach. In identifying and defining alternative designs, agencies are expected to include analyses of the technical and operational feasibility, as well as the cost of each alternative.

FCC stated that a contractor study entitled Document Handling Process Characterization Study of the Federal Communications Commission - Dockets Branch dated May 20, 1986, contains the analysis of alternative system designs. Our analysis shows that the contractor did not adequately develop the alternatives and corresponding costs for the dockets system. The study summarizes the current manual docket system and its problems and analyzes the costs of operating the manual system. It also suggests two possible solutions to improving the dockets system: (1) microfilm and (2) electronic document processing. In discussing microfilm, the study simply states that after microfilming of documents is complete, the documents are still in a physical form, albeit smaller, but are not computer-readable, and are subject to misfiling and loss just as are larger, paper documents. The study also contains a detailed discussion of the evolution and characteristics of electronic document processing. However, in that discussion the only type of electronic document processing identified and specifically recommended is the optical imaging technology that FCC plans to acquire.

[2]Federal Information Processing Standards Publication 64, Guidelines for Documentation of Computer Programs and Automated Data Systems for the Initiation Phase (Aug. 1, 1979), and Publication 38, Guidelines for Documentation of Computer Programs and Automated Data Systems (Feb. 15, 1976), National Bureau of Standards, Department of Commerce.

During the initiation phase, the agency is to prepare a cost benefit analysis. The purpose of this analysis is to provide management with adequate cost and benefit information on each alternative so as to assist in selecting the most efficient and effective alternative. This analysis should identify for each alternative the development and operational costs of such items as hardware, software, equipment maintenance, and personnel costs, and quantifiable and nonquantifiable benefits.

According to FCC's Managing Director, the cost benefit analysis for alternative system designs for the Record Image Processing System is included in the contractor's study on FCC's document handling process. We found this analysis to be inadequate because it contains only a comparison of storage media costs and not any of the other required cost or benefit comparisons. Specifically, it identifies the storage costs for paper, magnetic tape, and optical disks. It does not identify for each alternative design costs of items such as hardware and software, and quantifiable and nonquantifiable benefits.

FCC expects that the Record Image Processing System will save storage and labor costs involved in handling documents. These savings are based upon FCC being able to store original documents in warehouses, after being optically stored in the system, instead of in high-cost office space. The users will then be provided with electronic reproductions of the documents. Also, FCC believes labor costs will be reduced because workstations with printers will be installed to provide document copies instead of FCC reference room staff searching and obtaining the originals. This system is expected to reduce the number of people operating and maintaining the reference rooms. However, until FCC resolves the issue of whether electronically reproduced documents are acceptable in legal proceedings, such cost savings may not be realized.

Not All User Requirements Were Identified

According to federal guidelines, a proposed system should consider all user requirements such as input, processing, and output needs. In July 1987 FCC conducted a survey of the dockets reference room to obtain "input regarding dockets research . . . in order to design the best system possible." According to the Acting Associate Managing Director for Information Management, this survey was the major tool by which FCC intended to identify the needs of the users of the Record Image Processing System. The results of this survey are summarized in the Record Image Processing System requirements study prepared by FCC in October 1987. The summary consists of lists of statistics such as averages on the

percent of time spent waiting for a document, and on various types of documents requested.

However, FCC's survey did not address all levels of users and their needs. In addition, the questionnaire was distributed in a manner that subjected it to bias. Further, the survey collected information on the operation of the current manual system, but did not identify users' current and future automation needs.

The survey was conducted by distributing a questionnaire to individuals who visited the dockets reference room and requested a docket during the month of July 1987. According to FCC dockets reference room officials, visitors to the reference room are predominately paralegals who are obtaining information for others, such as attorneys, to use. However, FCC did not distribute the questionnaire to these attorneys or engineers, or their firms. The risk of determining user needs from the individuals who visit the reference room to seek and gather information for others is that these individuals may not be authorized to speak for the organization and may not even be fully aware of an attorney's or engineer's needs. The cochair and representatives of the Federal Communications Bar Association's Access to Records Committee told us that an attorney's needs could include access to original documents and copies, keyword and document number search capabilities, and remote access to docket files.

The results of the survey also may not be representative of the user population because of the manner in which it was conducted. Dockets reference room personnel were instructed to distribute a questionnaire with each docket a user requested. Responses were voluntary. This methodology is subject to bias from two perspectives. First, the responses of those who were willing to take the time to respond may have differed from those who were not. In this respect, only 133 questionnaires were collected of the 1,837 requests for dockets made in July 1987. Second, FCC's attempt to assess users' levels of satisfaction with the current manual system was flawed. For example, some respondents answered questions about waiting time in specific units of time such as "30 seconds," while others responded in terms of ranges of "2-3 minutes," and others offered responses such as "a few minutes." There are two ways to view a response that someone waited "2-3 minutes." One is that it was acceptable to the user, the other is that it was too long to wait. Because of the design of the questionnaire, the responses could not be used to determine the level of user satisfaction.

In addition, the questionnaire focused on obtaining information on the operation of the current manual system and did not obtain information on user automation needs. Of the 15 questions asked, only one appeared to address design characteristics affecting user needs. Specifically, the question asked, "what types of information would you feel were necessary to assist you in locating a particular document?" Because the questionnaire predominately consisted of questions on the operation of the current manual system, and not user needs for the proposed system, it was inadequate in assessing user requirements for a new automated system.

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